

Electric cooking stove (range) shocked me?

Exhibit 11

Hello,

I noticed this in the past since I rarely cook on the stove top (i usually bake things in the oven that comes with the electric range (Frigidaire))

So months back when I was making scrambled egg, I felt some kind of a pinching sensation or tingling rather on my finger or arm.

Ignored it. Fast forward day before yesterday I was using a stainless steel pressure cooker, and when I was about to put on the lid, the stainless steel lid was touching the body of the stainless steel pressure cooker that was on the stove, and I suddenly felt some mild burning tingling sensation. Because it was so cold (winter) and just washed lid with cold water, I thought the feeling was just the chillness of the cooker lid.

But I tried it again, boom it tingled me again. I was not wearing any footwear, I was barefoot and the tiled kitchen floor at that time was a little wet.

I called the building supervisor next day, who dismissed any problem, he said it's because your stove is too dirty inside, and pointed me to the residue that collected inside and underneath the element. Not on the inner side, but he lifted the whole thing like a car's hood and showed me under. I was not convinced. They usually blame the tenants in my building for anything.

For example, hey I saw a lot of spiders in my unit, the super will say, well it's because you don't keep your place clean, you probably always keep your windows open. Just an example.

Like that he quickly dismissed it and told me to clean it and left.

I cleaned it, and I don't know if it worked but I am nervous to test it. I don't have a multimeter or anything I have no idea how to use one. I even ordered one from Amazon, but there are no clear instructions on how to use it.

For example I watched a video on testing the volts using a digital multimeter on a wall plug. So the multimeter has 2 pins, he inserts one on each hold to see if it's 120V.

That's okay but how would one test a flat surface like an electric stove. Where will be second pin, either black or red go, or where should I touch it. Should I touch both the pins on the same flat metal surface of the cooking range?

I do not want to die because the supervisor does not want to check the entire thing. Any advice on what it could be?

Also he initially told me it could be static electricity. But static doesn't keep happening and continue to happen as long as you touch it. Then he changed the story to being not clean inside.

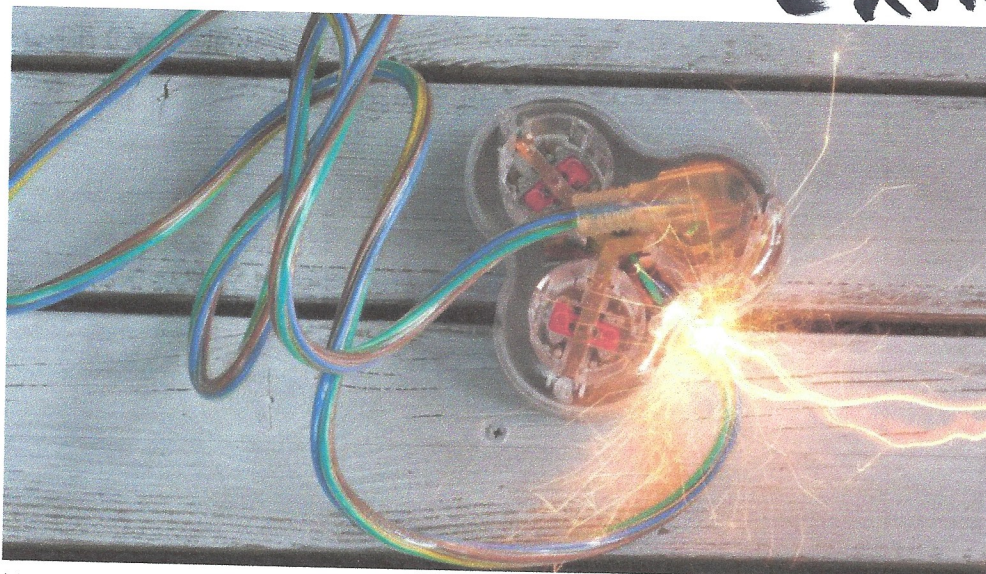
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We're Shocked! 5 Common Electrocution Dangers in Your Home

By [Tom Williams](#) (<https://www.realtor.com/author/twilliams/>)

Feb 7, 2019 (<https://www.facebook.com/sharer/sharer.php?u=https%3A%2F%2Fwww.realtor.com%2Fadvice%2Fhome-improvement%2Felectrocution-dangers-in-your-home%2F>)

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Of all the [scary hazards](#) (<https://www.realtor.com/advice/buy/scary-things-hiding-in-that-home/>) that could exist in your home, electrocution is one that should not be taken lightly. There's always a risk of being shocked by some of those handy products you use in your home on a daily basis.

The Occupational Safety and Health Administration says that, depending on the level of electrical current, electrocution can result in something as innocuous (but still painful) as a mild shock to something more severe, like nerve damage and burns. In some circumstances, it can even cause cardiac arrest and death.

As dramatic as that may sound, we're not trying to alarm anyone. But in the interest of keeping you and your loved ones safe, we asked the experts to reveal the most prevalent electrocution risks inside a home.

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Editor's Picks

1. Appliances

Most electrocutions from household appliances occur when people are trying to repair them. It's not enough to just turn off an appliance before attempting to work on it—you also need to unplug it to reduce your electrocution risk.

So how many injuries do appliances cause? Large appliances are responsible for 18% of consumer product-related electrocutions, and small appliances account for 12%, according to the Consumer Product Safety Commission.

There's also a chance of electrocution if your appliance comes into contact with water.

But many of these hazards can be avoided by using a ground-fault circuit interrupter, or GFCI.

"A GFCI is a protective device installed on electrical outlets, primarily used where water is present," say **Steve Gentilcore**, operations manager at Mr. Electric in Macomb, MI.

GFCI receptacles are found on outlets, circuit breakers, and extension cords. When they detect an imbalance in the electric current, they turn off the power to minimize the potential for an electrical shock.

Gentilcore says the National Electrical Code, as well as all residential codes, require GFCI protection for areas of the home where water is present.

"These areas include, but may not be limited to, kitchen outlets, bathroom outlets, exterior outlets, garage outlets, unfinished basement outlets, and, in some jurisdictions, laundry, sump pump, disposal, and dishwasher," he says.

Watch: Empower Yourself! 5 Things Electricians Wish You Knew

2. Ladders

Typically, ladders present a falling hazard, but according to the safety commission, 8% of consumer product-related electrocutions were also related to ladders.

Electrocution typically happens when the ladder makes contact with electrical wires, according to **J.B. Sassano**, president of home repair franchise Mr. Handyman.

"When accessing a roof or second-level windows, watch for dangerous interference such as power lines," he warns.

And before you even decide to use a ladder, make sure that you can see your power lines—including those that may be hidden by your tree branches—and ensure that the ladder is at least 10 feet away from them.

3. Power tools

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Exhibit
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**ELECTROCUTIONS ASSOCIATED WITH
CONSUMER PRODUCTS: 2004-2013***

(In Part)

From John Plourde

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May 2017

*This analysis was prepared by the CPSC staff and has not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

Exhibit 14

Executive Summary

This report provides: (1) information about the estimated number of unintentional, non-work-related electrocutions associated with the use of consumer products in 2010, 2011, 2012, and 2013; and (2) companion statistics since 2004. This report was prepared by U.S. Consumer Product Safety Commission (CPSC) staff.

It is important to note that the electrocution incidents covered in this report were associated with a consumer product but were not necessarily caused by the product.¹

Some of the key findings in this report:

- There was an estimated average of 48 electrocution fatalities associated with consumer products per year over the 4-year period from 2010 through 2013, with an estimated 70 consumer product-related electrocutions in 2010, 40 in 2011, 40 in 2012, and 40 in 2013.²
- The standardized age-adjusted death rate for electrocutions associated with consumer product use was 0.215 per million population for 2010, 0.125 in 2011, 0.140 in 2012, and 0.133 in 2013. The 4-year average from 2010 through 2013 is 0.153. Tests indicate that there is no statistical evidence of a trend in the electrocution death rate from 2004 to 2013.
- Victim age appears to be a factor in electrocution incidents. During the period covered by this report (2004 to 2013), there were more than three times as many electrocutions to victims 40 through 59 years old than there were to victims 19 years of age and younger, even though the U.S. population in these age groups is roughly equal.
- There were more than nine times as many estimated consumer product-related electrocutions to males than to females over the years 2004 through 2013.
- The three most common product categories associated with electrocutions over the 4-year period 2010–2013 were: "Large Appliance" (31 electrocutions), "Small Appliance" (21 electrocutions), and "Ladder" (15 electrocutions).
- Also, in 2010, a larger percentage of the electrocutions occurred during repair work by consumers at residential locations than in the prior or subsequent years.

¹ Not all of these fatalities are addressable by an action the CPSC could take; however, it was not the purpose of this report to evaluate the addressability of the incidents, but rather, to update the estimates of the number of consumer product-associated electrocutions.

² Annual electrocution estimates are rounded to the nearest 10.

Exhibit 14

Introduction

This report was prepared by U.S. Consumer Product Safety Commission (CPSC) staff and contains estimates of the number of unintentional non-work-related electrocutions involving consumer products and the corresponding age-adjusted death rates from 2004 through 2013. National estimates of consumer product-related electrocutions are derived from in-scope death certificate records contained in CPSC databases. An in-scope case is any unintentional electrocution in which a consumer product (e.g., power drill or microwave oven) was involved and was not work related. For the period studied, CPSC records contain the majority of death certificates identified as electrocutions. The National Center for Health Statistics (NCHS) has records of every known electrocution that occurred in the United States. NCHS records, however, lack product information. National estimates are generated by scaling or projecting CPSC records using NCHS record totals (see appendix B for details). *


This report contains annual estimates for consumer product-related electrocutions for 2004 through 2013. The 4-year average of the latter 4 years is also presented. In addition, this report presents a breakdown of consumer product-related electrocutions by victim age group and gender, as well as age-adjusted mortality rates for direct comparison of year-to-year data. Finally, there is a breakdown by product category (e.g., "Small Appliance" or "Power Tool").

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National Estimates of the Number of Product-Related Electrocutions



The basis for national estimates of the number of product-related electrocutions per year is the number of in-scope fatalities reported to CPSC staff through death certificates. Appendix A presents the scope definition used for this report. The annual frequency of in-scope fatalities reported to CPSC staff is projected nationally using NCHS data. Specifics of the scaling procedure can be found in Appendix B. The NCHS database contains records of all death certificates filed in the United States. Table 1 provides a summary of the number of electrocution records in the NCHS and CPSC databases. Table 1 also provides CPSC staff's national estimates for consumer product-related electrocutions for the years 2004 through 2013.

 **Table 1: National Estimates of Electrocutions Associated with Consumer Products, 2004–2013**

Year	NCHS Electrocution Records	CPSC Electrocution Records	Estimated CPSC In- Scope Records*	CPSC Staff National Estimates [#]	Percent of CPSC Electrocution Records that are In Scope
2004	387	358	56	60	16%
2005	394	350	83	90	24%
2006	390	348	41	50	12%
2007	370	321	50	60	16%
2008	306	263	43	50	16%
2009	305	232	73	100	32%
2010	312	286	63	70	22%
2011	310	285	36	40	13%
2012	279	252	40	40	16%
2013	257	239	40	40	17%
Total 2004-2013	3,310	2,934	525	600	18%
Average 2010-2013	290	266	45	48	17%

* Estimated CPSC In-Scope Records represents proportionately scaled counts after allocation of electrocution incidents with unknown location and/or scope (see Appendix B for details).

[#] Estimates have been rounded to the nearest 10.

The national estimates of consumer product-related electrocutions for 2009 were higher than estimates for the previous 3 years or succeeding 4 years. There is insufficient information available to CPSC staff to determine what caused the apparently higher number of electrocutions in 2009. With the exception of 2005, the estimates for all other years were 40 to 70 (rounded to the nearest 10).

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Table 4 presents the national estimates of electrocutions characterized by gender. Male victims comprise the large majority of electrocutions, accounting for 92 percent (180 of 196) of all consumer product-related electrocutions over the 4-year period 2010–2013.

**Table 4: National Estimates of Consumer Product-Associated
Electrocutions
Categorized by Gender of Victim,
2004–2013**

Gender of Victim	Total 2004–2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average 2010–2013
Female	60	12	7	5	6	5	8	5	3	4	4	4
Male	547	49	86	41	54	50	88	64	36	40	38	45
All	607	61	93	46	60	55	96	69	39	45	43	49

Note: Details may not sum to row and column totals due to rounding.

There are far fewer electrocutions to female consumers than might be expected, given the proportion of the U.S. population that is female. The 10-year average U.S. population of females for the years 2004–2013 is slightly higher than the average population of males (154.889 million and 150.237 million, respectively), yet the estimated number of electrocutions to males is more than seven times greater than to females. A Pearson's Chi-Square Test for Independence rejected independence, which would indicate that gender is a factor in electrocution incidents.⁵

Number of Reported Electrocutions by Product Type

There is a broad distribution of incidents over many products and product categories. The specific counts are small and would show little change when applying scaling factors. Therefore, product and product category summaries in Table 5 are presented as actual observed frequencies in the CPSC death certificate databases and are not national estimates.

The three most common product categories associated with electrocutions over the 4-year period 2010–2013 were "Large Appliance" (31, or 18% of reported consumer product-related electrocutions); "Small Appliance" (21 deaths, 12%); and "Ladder" (15, 8%). The most common scenario for electrocutions involving large and small appliances was the consumer being electrocuted while attempting to repair the appliance. The most common scenario for electrocutions involving ladders was the ladder coming into contact with electrical wires. Over the 10 years covered in this report, the four most common product categories associated with electrocutions were: "Large Appliance" (67 deaths, or 15% of reported consumer product-related electrocutions); "Small Appliance" (61, 14%); "Power Tool" (39, 9%); and "Lighting Equipment" (33, 7%).

⁵ See Appendix C for details.

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**Table 5: Number of Electrocutions Reported to CPSC
by Consumer Product Category and Year**

Product Category	Total 2004–2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average 2010–2013
Antenna	18	2	2	1	2	2	5	1	0	1	2	1
Electric Fence	12	1	1	3	0	2	0	1	0	2	2	1
Extension Cord	15	3	2	0	1	1	2	3	0	2	1	2
Hand Tool	22	0	0	0	3	2	3	3	5	1	5	4
Holiday Lighting	4	1	1	1	0	0	0	0	0	0	1	<1
Household Wiring	21	5	1	2	0	1	3	4	0	1	4	2
Ladder	27	4	4	2	1	0	1	6	4	3	2	4
Large Appliance	67	8	4	5	3	3	13	14	5	7	5	8
Lawn & Garden Equipment	8	2	2	0	0	0	1	1	1	1	0	1
Lighting Equipment	33	4	6	2	4	0	4	6	2	2	3	3
Miscellaneous Wiring	7	0	1	1	2	2	0	1	0	0	0	<1
Other Household Appliance	1	0	0	0	1	0	0	0	0	0	0	0
Other Miscellaneous Product	17	1	0	1	0	0	2	3	6	3	1	3
Outdoor Wiring	1	0	0	0	0	0	0	1	0	0	0	<1
Piping	8	0	0	0	1	0	2	1	1	3	0	1
Pole	23	2	6	0	1	3	3	2	3	2	1	2
Pool/Whirlpool/Hot Tub	17	3	3	1	1	2	2	1	1	2	1	1
Power Tool	39	3	11	2	2	3	5	5	3	3	2	3
Recreational Equipment	12	2	7	1	0	0	0	0	1	1	0	1
Small Appliance	61	1	7	10	6	7	9	7	2	6	6	5
Unspecified Appliance	9	1	5	1	0	2	0	0	0	0	0	0
Unspecified Electrical Cord	17	0	3	4	2	0	2	2	1	0	3	2
Unspecified Tool	6	1	3	0	1	0	0	1	0	0	0	<1
All Consumer Products	445	44	69	37	31	30	57	63*	35	40	39	44

*Includes a two-fatality incident with unknown scope determined, where a ladder was reportedly involved.

Exhibit 14

electrocution incidents were characterized into subpopulations by year of death and age group and by year of death and gender. The death rates by year/age are presented as standardized death rates using the 2000 U.S. population as the standard. In August 1998, the use of the Year 2000 standard population was established in a policy statement from the Secretary of the Department of Health and Human Services (DHHS). In the policy statement, all DHHS agencies, including NCHS and the Centers for Disease Control and Prevention (CDC), were directed to use this standard.

The crude death rate is determined by dividing the total number of deaths for a specific characterization by the mid-year population for the same characterization. The standardized age-adjusted death rate is calculated by multiplying each age-specific category rate by a standardized weight, which represents the proportion of the population in the specific subpopulation for the given standard year (Year 2000). The products of the age-specific rates and the weights are then summed over age group to produce the age-adjusted rate. Table B8 presents the U.S. population subdivided by age group for the years 2004 through 2013. Table B9 provides the standardized age group weights based on the Year 2000 U.S. Population. Table B10 provides a summary of the calculations to determine age-adjusted death rates for the years 2004 and 2013 standardized to the Year 2000 population.

Table B8: U.S. Population (1,000,000s)

Age Group	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average Population
< 1-19	81.820	82.073	82.390	82.857	83.198	83.421	83.180	82.814	82.482	82.248	82.648
20-39	81.486	81.612	82.064	82.581	83.127	83.644	82.992	83.547	84.366	85.244	83.066
40-59	80.904	82.384	83.594	83.816	84.169	84.559	85.687	86.033	86.067	85.810	84.302
60 and over	48.836	49.685	50.546	52.326	53.881	55.383	57.467	59.187	60.959	62.826	55.110
ALL	293.046	295.753	298.593	301.580	304.375	307.007	309.326	311.583	313.874	316.129	305.127

Source: U.S. Census Bureau, <https://www2.census.gov/programs-surveys/popest/datasets/2010-2013/national/asrh/nc-est2013-agesex-res.csv>

NOTE: Rows and columns may not sum to "Totals" due to rounding.

Table B9: Standardized Age Group Weights Based on Year 2000 U.S. Population

Age Group	Census Year 2000 Estimated Population (1,000,000s)	Std. Wt. (Year 2000)
< 1-19	80.473	0.28595
20-39	81.563	0.28982
40-59	73.590	0.26149
60 and over	45.798	0.16274

Source: U.S. Census Bureau, Statistical Abstract of the United States: 2012

Exhibit 15

	Direct current (mA)		Alternating current (mA)					Incident severity
	150 lb	115 lb	150 lb	115 lb	150 lb	115 lb	115 lb	
Effect/feeling								
Sensation	1	0.6	0.4	0.3	7	5	None	
Perception threshold	5.2	3.5	1.1	0.7	12	8	None	
Not painful	9	6	1.8	1.2	17	11	None	
Not painful	62	41	9	6	55	37	Spasm, indirect injury	
Electrode clamps source	76	51	16	10.5	75	50	Possibly fatal	
Respiratory arrest	170	109	30	19	180	95	Frequently fatal	
3-s vent. fibril.	1300	870	1000	670	1100	740	Probably fatal	
vent. fibril.	500	370	100	67	500	340	Probably fatal	
vent. fibril.	375	250	75	50	375	250	Probably fatal	
Heart arrest	--	--	4000	4000	--	--	Possibly fatal	
Death by burn	--	--	5000	5000	--	--	Fatal if it is a vital org	

Exhibit 16






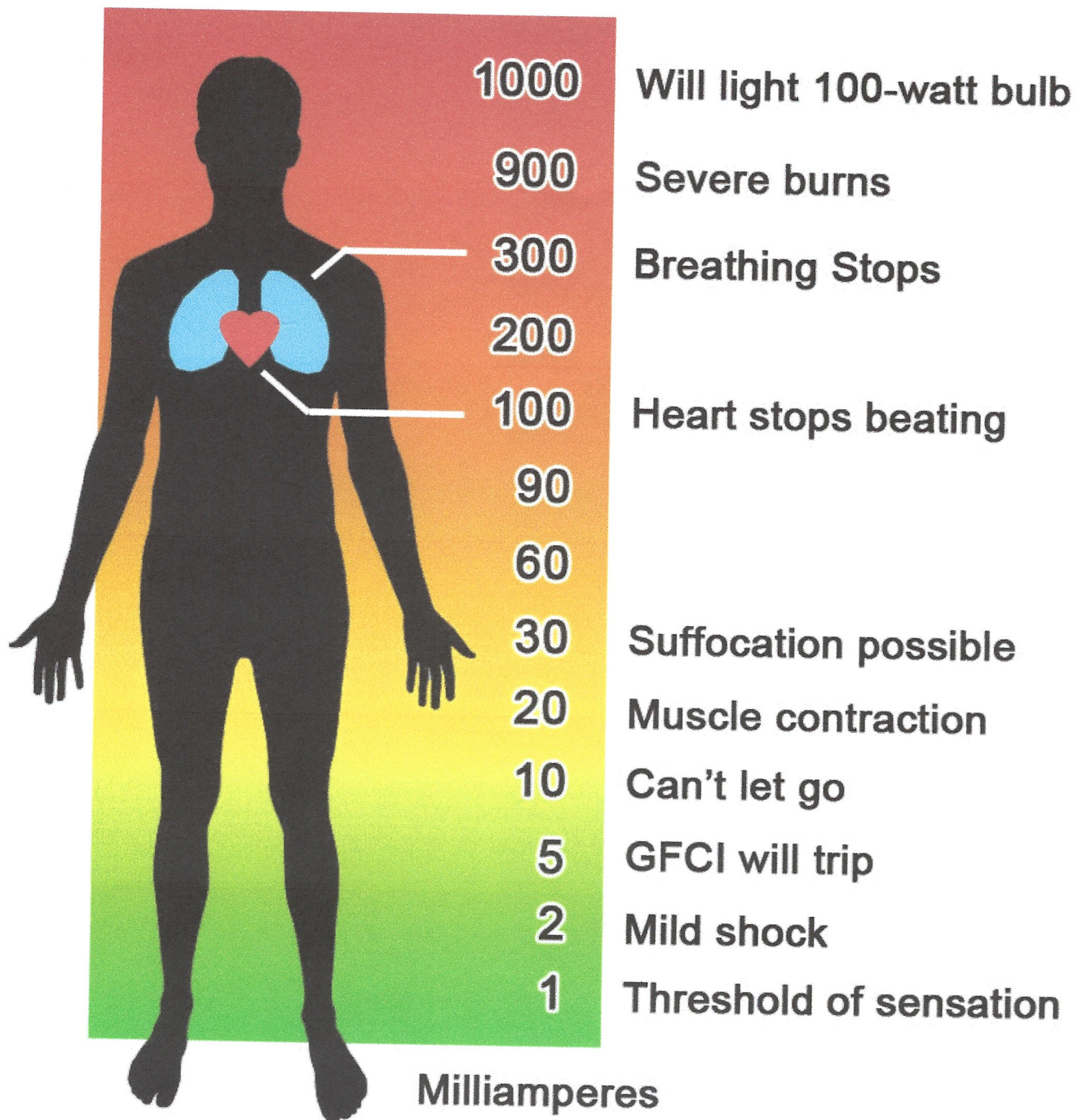
500 mA		Immediate cardiac arrest
70-100 mA		Cardiac fibrillation; the heart to vibrate no longer beats; This contraction can cause paralysis
20-30 mA		Muscle contraction can cause paralysis
10 mA		Muscle contraction: the person "stuck" to the conductor
1-10 mA		Prickling sensations

Exhibit 17

Current level (Milliamperes)	Probable Effect on Human Body
1 mA	Perception level. Slight tingling sensation. Still dangerous under <u>certain conditions</u> .
5mA	Slight shock felt; not painful but disturbing. Average individual can let go. However, strong <u>involuntary reactions</u> to shocks in this range may lead to injuries.
6mA - 16mA	Painful shock, begin to lose muscular control. Commonly referred to as the freezing current or "let-go" range.
17mA - 99mA	Extreme pain, respiratory arrest, severe <u>muscular contractions</u> . Individual cannot let go. <u>Death is possible</u> .
100mA - 2000mA	Ventricular fibrillation (uneven, uncoordinated pumping of the heart.) Muscular contraction and nerve damage begins to occur. <u>Death is likely</u> .
> 2,000mA	Cardiac arrest, internal organ damage, and severe burns. Death is probable.

Exhibit 18



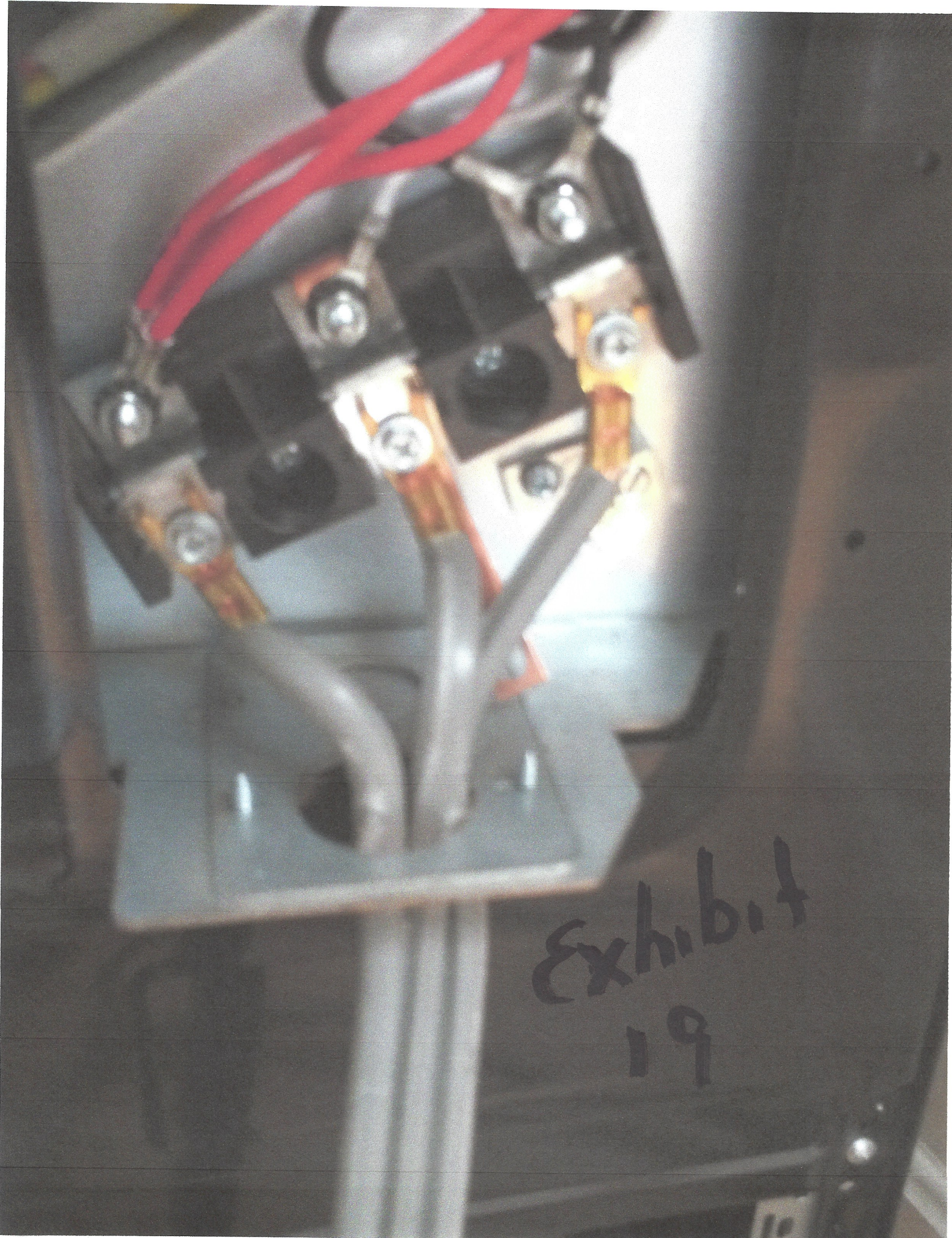


Exhibit
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Exhibit

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07/20/21	S2321690
ORDER TO:	PAGE NO
INDEPENDENT ELECTRIC SUPPLY 177 GAY ST. MANCHESTER NH 03103 603-627-2220 Fax 603-626-8283	1

QUOTE TO:
 COD - MANCHESTER
 177 GAY ST.
 MANCHESTER, NH 03103

SHIP TO:
 COD - MANCHESTER
 CITY OF PORTSMOUTH
 JOHN PLOURDE
 MANCHESTER, NH 03103

CUSTOMER NUMBER	CUSTOMER ORDER NUMBER	RELEASE NUMBER	SALESPERSON	
6509	QUOTE		HOUSE SALES ACCOUNT	
ORDER QTY	PART NO	DESCRIPTION	UNIT PRICE	Net
1000e	7917	COPPER ROMEX 12/2-WG 250' COIL 98010026305	692.424/m	692.42
1000ea	28276	COPPER MC 12/2 250FT COIL	688.235/m	688.24
1ea	215471	ETN GFTCB250 2 POLE 50A GFST, 120/240V, 10 KAIC, #14-4 AWG	145.946/ea	145.95
1ea	232800	ETN GFTCB230 BR 2 Pole 30A Ground F	78.541/ea	78.54
1ea	27906	ETN BR230 BR Circuit Breaker 10K	14.583/ea	14.58
1ea	28000	ETN BR250 BR Circuit Breaker 10K	14.847/ea	14.85
1ea	193709	P&S 3232-W RECEP DUP 15A125V SCREW	65.972/c	0.66
1ea	132881	P&S 3232-TRW TR DUP REC 15A125V	1.264/e	1.26
1ea	28994	CUTLER BR340 BR Circuit Breaker 78667636785	104.500/ea	104.50
1ea	163661	ETN CHSPT2ULTRA SURGE PROTECTION TYPE 2 SPD	163.785/ea	163.78
TAXES NOT INCLUDED				
PRICING IS SUBJECT TO CHANGE WITH CURRENT MARKET CONDITIONS. FREIGHT AND FUEL SURCHARGES MAY APPLY.			Subtotal	1904.78
			S&H CHGS	0.00
			Amount Due	1904.78